TERMS OF REFERENCE

Title of the Consultancy:	Consultancy to develop an African Union-Occupational Safety and Health Information System (AU-OSHIS) in mining and non-mining industries
Consultancy type: *(Individual or firm)*	Individual
Directorate & Division	Program Delivery Coordination Directorate Human Capital and Intuitional Development Division Health Programme
Contact Person:	Chimwemwe Chamdimba
Procurement Number (from procurement plan)	68/AUDA/DPDC/HCID/ICS/2023

Background:

The Southern Africa Tuberculosis and Health Systems Support (SATBHSS) project is being implemented in Lesotho, Malawi, Mozambique, and Zambia to (i) improve the coverage and quality of TB control and occupational lung disease services, and (ii) strengthen regional capacity to manage the burden of TB and occupational diseases. The AUDA-NEPAD and ECSA-HC provide regional technical support to implement the project with the support of the World Bank. The project contributes to SADC member states' efforts to respond to tuberculosis (TB) as a regional challenge that has presented both health and economic impact. The Southern Africa region is one of the high burden regions continentally and globally, with 9 of the 30 high burden disease countries (2016 – 2020) defined by the WHO. The high TB burden in the SADC region has been attributed to the HIV/AIDS epidemic, poverty, and the individual and community impacts of mining. The mining sector has been associated with high TB incidence rates despite its contribution to many economies in the region. The challenge of TB in the mining sector is attributed to the high prevalence of silicosis amongst mineworkers due to working conditions in the mines, which expose miners to respirable silica dust and make miners more vulnerable to TB. Such conditions include poor ventilation and high temperatures, making wearing a face mask for extended periods challenging. Furthermore, unfavourable living conditions for miners in high-density overcrowded housing in the mining camps and constant migration facilitate TB transmission.

In implementing the SATBHSS Project, countries have committed to rolling out a standardized package of occupational health services (OHS) and mining safety standards to respond to TB and occupational lung diseases. In undertaking these tasks, the countries are strengthening public sector agencies responsible for mine safety inspection; expanding periodic screening and referral for occupational lung diseases and other diseases in line with regional standards and international best practices; and developing /strengthening care programs for occupational lung diseases. As part of interventions to strengthen Occupational Safety and Health (OSH), the SATBHSS project is developing and rolling out OSH databases and electronic record systems in the

countries implementing the project. Electronic record systems and databases aim to assist countries in linking medical surveillance with occupational hygiene and inspection data for integrated management of occupational lung diseases and strengthening overall referral for compensation. The electronic record systems and databases will support countries to move from the current paper-based system for inspection, medical surveillance records, reporting, storage, and sharing of information. It will facilitate efficient and effective data capturing and storage, monitor progress, and facilitate data-sharing among different sectors at the national level and across countries at the regional level.

Rationale:

This assignment focuses on developing an OSH information system that can be implemented in mining and non-mining industries, depending on the national economic strategy and how the industry is more formalised in that industry. However, the priority modules will focus on mining industry, linked with the secondary and tertiary supporting interventions from ministries or departments responsible for medical surveillance, compensation and rehabilitation, retraining and return to work. The system will support the countries to capture and manage OSH information (which is a key to surveillance programs); allow patterns and trends and implement early interventions. The system will be web-based and able to collate reported incidents, incident investigations, and storage of occupational health information, hazard assessment, and other services such as hazardous waste management. Implementation of such a system, coupled with enhanced capacity of Safety Health and Environment workforce, will result in better management of OSH in the countries. The system will contribute to training and increased awareness of OSH issues and increase reporting of accidents and incidents. It is also helpful in the daily management of occupational health surveillance and identifying common root causes resulting in incidents that allow for targeted interventions. The information generated through the system is valuable for strengthening research for generating evidence to support policies and interventions.

Objectives of the assignment:

i. To design, develop, and implement an open-source, integrated and cost-effective Occupational Safety and Health (OSH) information system for compliance monitoring, miner health surveillance, and referral for compensation services.

ii. To support Lesotho, Malawi, Mozambique and Zambia to adapt and implement the systems at the national level.

iii. To promote harmonization of data generating and reporting systems that link worker exposure and outcome in the countries.

iv. To develop a regional dashboard for information sharing between countries based on agreed regional OSH indicators.

v. To train in-country and regional developers, system administrators and users for the effective and sustainable roll-out of the information systems.

vi. To develop user manuals with a troubleshooting section.

vii.	To support countries in developing systems for quality control in all the components of the information systems

Scope of work, activities, and Tasks:

This consultancy will cover four countries, i.e., Lesotho, Malawi, Mozambique, and Zambia. The expert will support the countries in developing and implementing an OSH information system that responds to national needs and ensures that the system manages data on occupational injuries and diseases across different sectors. The focus will ensure that the current fragmented OSH data is turned into an integrated and organized system across ministries, sectors, and industries. In undertaking this task, it is expected that the expert will support countries to develop and implement OSH information systems modules to suit the needs of the implementing ministries and government agencies. The initial roll-out at the national level will be in strategic areas of project implementation as a starting point for a nationwide roll-out of the system. To facilitate sustainability in implementing the system, training will be undertaken for developers and systems administrators in the countries. The expert will also provide ongoing technical support and maintenance of the systems when the local system operator or managers cannot resolve issues that may arise. The expert will work with the TWG on OSH Information Systems and submit progress and recommendations on the next steps to regional and country Communities of Practice, relevant ministries, and stakeholders. This will facilitate knowledge sharing and learning between countries. The initial roll-out of the system will be in Zambia as the Centre of Excellence on OHS end of the first quarter. Lessons learned in Zambia will inform the system in Lesotho, Malawi, and Mozambique, this will be for at least one department starting in second to fourth quarters.

The implementation of the task will focus on the following:

- Development, installation, and linking of an open-source OSH information systems in countries' ministries of health, labour, and mines as per identified needs.
- Training and certification of in-country developers and system administrators for the system's sustainability, maintenance, and further adjustment.
- Training and certification of users for the effective roll-out of the information system in countries. This will also include developing a training video module for system users.
- Development of user manuals with troubleshooting sections in English and Portuguese.
- Development of quality control systems in all the information systems components.
- Development of a regional module that will facilitate sharing of aggregated data between countries based on agreed indicators.
- Supporting cross-country learning and sharing of best practices among countries.

Capacity Building Program:

The assignment will involve a capacity development of in-country co-developers and capacitation of the Centre of Excellence on Occupational Health and Safety based in Zambia as an overall system management and maintenance. Also, there will be business analyst capacitated on the management of the system, these will include both government and private sector officials.

Expected results and deliverables:

- Inception report including technical architectural design of the functional and non-functional system design.
- Integrated open-source occupational safety and health (OSH) information systems rolled out in Lesotho, Malawi, Mozambique, and Zambia.

- Databases linked at the national level for data sharing between the implementing ministries, institutes, and regional organization.
- In-country system administrators and users trained and certified in the four countries.
- Regional module to facilitate aggregated data sharing between developed and rolled out countries.
- Aggregated data is shared at the regional level as per agreed OSH indicators.

Location:

The project will be implemented in four countries, i.e., Lesotho, Malawi, Mozambique, and Zambia. A regional component will be implemented hosted by AUDA-NEPAD that will link the country systems.

Timeframe of the assignment:

The tasks are expected to be implemented from April 2023 to October 2023.

Deliverables/Reports/Milestones Schedule:

Roll out of information system is estimated to be carried out in 150 person-days that will be implemented over 8-months. The proposed work plan is as outlined in the table below.

Activity	Days
Develop an inception report	5
System design and guidance document on governance for OSHIS developed to ensure efficiency and sustainability of the system as well as inform future system design	25
OSHIS platform development	60
Initial database configuration ready for testing, and meeting data analysis and data collection requirements of OSHIS (Local and regional platforms)	20
Support OSHIS pilot implementations and train in-country and regional developers	35
Project closure and handover	5
Total	**150**

Submission & approval of reports

The consultant will report to the Principal Programme Officer – Policy Specialist. The following will be submitted to the project manager in English:

1. System design and guidance document on governance for OSHIS developed to ensure efficiency and sustainability of the system as well as inform future system design submitted by 19 May 2023
2. OSHIS platform developed by 31 July 2023
3. OSHIS rolled out in four countries and handed over by 30 October 2023

The Project Manager will be responsible for approving the submitted documents. The approval will be done after consulting with the target countries, who will provide their comments within two weeks of submission of the documents. The countries will be given two weeks to provide their comments. If comments are not received within the stipulated time, the documents are deemed approved by the countries.

Language requirements:

The consultant should be proficient in one of the African Union's working languages (English, French, Portuguese, or Arabic). The consultant must be proficiency in English and working knowledge of Portuguese, working knowledge in other AU languages will be an added value.

Consultancy fees:

The consultant will be paid consultancy fees based on the agreed daily parson-days aligned with African Union rules and regulations. In addition, AUDA-NEPAD will cover the costs for travel, accommodation, and daily subsistence allowances.

Person Days/Months

#	Expected Deliverables	Estimate Duration
1	Inception report submitted	5 person-days
2	OSHIS designed	25 person-days
3	OSHIS platform developed	60 person-days
4	Initial database configuration ready for testing and metadata analysis and data collection requirements of OSHIS (Local and regional platforms)	20 person-days
5	OSHIS pilot implementations supported in Lesotho, Malawi, Mozambique, and Zambia	35 person-days
6	OSHIS handed over	5 person-days
	Total person-days	**150 person-days**

Governance, support, and facilities to be provided by AUDA-NEPAD:

The consultants shall work under the guidance of the AUDA-NEPAD. The AUDA-NEPAD will:

- Provide technical support to the consultant on occupational health and safety programmatic aspects
- Arrange and pay for all travel logistics required to undertake the task
- Introduce the consultant to the respective Governments (Lesotho, Malawi, Mozambique, and Zambia)

The consultant will be required to present the work to the community of practice for OHS and respective project countries.

Proposed Payment Schedule

The payment schedule for the consultancy shall be as follows:

i. First payment (30% of the total payment): Upon delivering the system design and guidance document on governance for OSHIS developed to ensure efficiency and sustainability of the system as well as inform future system design submitted by 19 May 2023

ii. Second payment (30% of the total payment): Upon delivering the OSHIS platform by 31 July 2023

iii. Third payment (40% of the total payment): Upon rolling out OSHIS in four countries and handing over by 30 October 2023

Qualification and work experience required for Key Experts:

Applications may be submitted by specialist/software developer or analyst with proven experience and track record in developing health information systems. Those with experience working with AU member states

implementing occupational safety and health tools and expertise in occupational safety and health will have an added advantage. Selection will be based on the qualifications and experience stipulated below.

a) A minimum of a master's degree in OSH systems' development or related fields.

b) A minimum of 10 years of experience working in OSH system development and implementation and support.

c) Knowledge and understanding of OSH systems and occupational health services in the region.

d) Experience in designing multi-level system aggregate indicators and dashboards.

e) Experience in designing monitoring and evaluation systems.

f) Strong analytical and writing skills

Copyrights:
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